Inventors: Krueger et al. Application No.: 10/699,618

Atty. Dkt. No.: 5259-11301

Amendments to the Claims

Please cancel claims 2-7, 22-27, 33-37, and 39-44 without prejudice.

The following listing of claims will replace all prior versions and/or listings of claims in the application:

Listing of Claims:

1. (original): An artificial disc implant for a human spine, comprising: two engaging plates, wherein each engaging plate comprises:

a recess; and

two or more slots configured to engage an insertion instrument during insertion of the disc implant, wherein the slots are at an angle relative to an anterior-posterior axis of the engaging plates; and

one or more members positionable between the engaging plates, wherein at least one of the members comprises a portion configured to complement at least one of the recesses to allow axial rotation, lateral movement and anteroposterior movement of the engaging plates relative to each other during use.

2-7. (cancelled)

8. (original): A system for inserting an artificial disc implant between human vertebrae, comprising:

an inserter having a body, a passage through the body, and arms, wherein the arms are configured to be releasably coupled to engaging plates of the artificial disc implant; and

a distractor positionable in the passage in the body, wherein the distractor is configured to separate the arms of the inserter such that engaging plates coupled to the arms of the inserter remain substantially parallel during separation of the engaging plates to form a disc space between the human vertebrae.

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9. (original): The system of claim 8, wherein the inserter is configured such that coupling

the inserter to the engaging plates does not increase separation between the engaging plates.

10. (original): The system of claim 8, wherein the arms of the inserter are configured to be

releasably coupled to dovetailed slots in the engaging plates.

11. (original): The system of claim 8, wherein the inserter and the distractor are configured

such that the distractor does not contact the engaging plates during insertion of the engaging

plates.

12. (original): The system of claim 8, further comprising a pusher, wherein the pusher is

configured to drive a member through a passage in the distractor and position the member

between the engaging plates.

13. (original): The system of claim 8, further comprising a member seater configured to seat

a member in the engaging plates through the passage in the inserter.

14. (original): The system of claim 8, further comprising trial endplates and one or more

additional distractors, wherein the trial endplates are configured to be used in combination with

the distractors to determine height and lordotic angle of the artificial disc implant to be inserted.

15. (original): A method for forming an artificial disc implant between human vertebrae,

comprising:

positioning two engaging plates between the human vertebrae;

separating the engaging plates such that the engaging plates remain substantially parallel;

positioning one or more members between the engaging plates such that a surface of at

least one of the members contacts a complementary surface of at least one of the engaging plates;

and

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wherein the engaging plates and at least one of the members are configured to allow

relative movement of the engaging plates during use.

16. (original): The method of claim 15, further comprising determining a height, size and

lordotic angle of the artificial disc implant to be formed between the vertebrae before positioning

the engaging plates between the vertebrae.

17. (original): The method of claim 15, further comprising forming a recess in at least one of

the vertebrae to engage a projection on at least one of the engaging plates.

18. (original): The method of claim 15, wherein positioning at least one of the members

comprises positioning such members in a rounded recess in at least one of the engaging plates.

19. (original): The method of claim 15, wherein the engaging plates are positioned using an

angulated anterior approach to the vertebrae.

20. (original): The method of claim 15, wherein the engaging plates are positioned using an

anterior approach to the vertebrae.

21. (original): A disc implant, comprising:

a first engaging plate and a second engaging plate;

a member positionable between the engaging plates;

wherein the first engaging plate comprises a recess configured to receive a base of the

member, wherein one or more sides of the recess are tapered; and

wherein a surface of the second engaging plate complements a surface of the member to

allow axial rotation, lateral movement and anteroposterior movement of the engaging plates

relative to each other during use.

22-27. (cancelled)

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28. (original): A system for inserting an artificial disc implant, comprising:

an inserter having a body, a passage through the body and arms, wherein the arms are

configured to be releasably coupled to engaging plates of the artificial disc implant; and

one or more distractors positionable through the passage in the body, the distractors configured to move the arms to establish a separation distance between engaging plates coupled to the arms.

- 29. (original): The system of claim 28, further comprising a pusher configured to drive a member down a passage through the distractor to a position between the engaging plates.
- 30. (original): The system of claim 28, further comprising a member seater configured to seat a member between the engaging plates.
- 31. (original): The system of claim 28, further comprising trial endplates, wherein the trial endplates in combination with at least one distractor are configured to determine height and lordotic angle of the artificial disc implant to be inserted.
- 32. (original): An instrument kit, comprising:

one or more trial endplates;

a plurality of implant components; and

an inserter configured to couple to selected implant components to allow the components to be positioned in a disc space;

one or more distractors configured to couple to the inserter to establish a separation distance between the selected implant components coupled to the inserter.

33-37. (cancelled)

38. (original): A method for forming an implant between vertebrae of a spine, comprising: coupling a pair of engaging plates to a portion of an inserter; positioning the engaging plates between adjacent vertebrae;

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positioning one or more members between the engaging plates; and wherein at least a portion of the engaging plates and at least a portion of at least one member is configured to allow at least some movement of a first vertebra relative to a second vertebra.

39-44. (cancelled)

45. (currently amended): An instrument for insertion of a disc implant, comprising: a body;

one or more arms configured to couple to one or more engaging plates; and a distractor positionable in an opening of the body, wherein the distractor is configured to separate in a substantially parallel direction one engaging plate from a second engaging plate.